



ODS - Optic Drone Solutions, LLC

“High Quality, Superior, Data Rich, Aerial Videos, Photo Images and More”

Inspections - Verification - Confirmation - Technical - Assistance

7940 Denham Chase, Denham Springs, Louisiana 70726

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Website ODS - Optic Drone Solutions, LLC

ods-opticdronesolutions.com

ODS - Alternative Solutions - Technical Services Division

September 20, 2023

Professional Checking/Verification Services:

Instrumentation & Associated Electrical Design/Engineering/Documents/Drawings

Engineering/Procurement/Construction (EPC) Projects
Process Control & Automation - DCS/SIS/PLC/Etc.
Analytical Measurement/Monitoring & Control (Process/Environmental)
Emergency Shut Down (ESD) and Fire/Gas/Detection Safety Systems

Services Offered:

Third (3rd) Party, Comprehensive Checking services. Intermediate and/or Additional Final Continuity Checking to reduce, I&E Design/Engineering Project Deliverable(s), Construction/Installation, Procurement, Expenditures. Reviewing/Verification/Checking/Commenting, for I&E Design/Engineering Documents/Drawings. Complete or Partial Work Package(s), Tasks/Assignments/Efforts, for Efficient Turnaround/Return. Including - Initial EPC Design/Engineering/Drafting “*Execution Plan Strategy*”, for your Design Team needs.

Document/Drawing Checking - Effort/Achievement: “*ISO 9001 Type Procedures*”

In Lieu of, Initial Engineering, Design/CADD/Drafting, Project Milestones. Projects may require Intermediate Checks and Additional Final Checks. Separate Individuals not involved in the original Engineering/Design, In-House or Out-Sourced, Before any/all Project Deliverable/Hard Copy/Documents/Drawings are Formally Issued for Client/Customer/Approvals. “Issued for Approval” “Issued for Design” “Issued for Purchasing” “Issued for Construction” *Scenarios or Requirements*.

Performed by qualified personnel to Review/Verify/Confirm on Specific/Significant Data/Information, represented, within the Body of a Document/Drawing for Consistencies and Discrepancies, for all Project Deliverable Documents. Document/Drawing/Formats/Sizes/Title Blocks/Borders/Representation/References/etc, are normally established up-front early-on, for Projects, based on Company Standards/Clients/Contractual/Obligations/Agreements, and may be ignored.

There are many Methods/Philosophies/Approaches for Comprehensive Checking. “*Loop Diagrams are a Great Example*” to Weigh-Out Work-Hour Estimates for checking purposes only, partial or complete work packages, for effectiveness.

Typical - EPC Project Documents/Drawings Summary (Complete or Partial Checking):

Process and Instrument Diagrams (P&ID's)
Instrument Index
Loop Diagrams/Drawings
Instrument Data Sheets
I/O list/Loading/Assignments
DCS/SIS/PLC/F&G Wiring Diagrams
Junction Box/Marshalling Cabinet/Panel Wiring Diagrams
Cable Schedules/Lists
Communications/Fiber Optics/Wiring/Block Diagrams
Cause & Effect Matrix/Logic/Diagrams/Document/Drawings
Cabinet/Panel/Layouts/Arrangements
Location Plans/Layouts
Installation Details/Process/Electrical/Material Take-Off (MTO's)
Electrical Requirements/Power/AC/DC/Grounding/MCC/SWGR/Schematic/Interfaces/Wiring/etc.
Analyzers/Systems: Field/Sample Systems/Shelters/Buildings/Vendor Packages/Review/Interfaces
Misc. Stand Alone/Vendor Package/Process Equipment/Review/Interfaces
Engineering/Design Project Specifications/Constructability/Philosophies
Drawing List/Document Control
Procurement/Purchasing Documents



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Documents/Drawings:

PDF (Portable Document Format) Files Preferred.

Eliminate Any/All/Potential/Possible/Manipulation(s)/Changes/Errors to Original “Software Files” (.docx/.xlsx/.dwg/etc.).

To Ensure Integrity/Incorruptibility for all Checking Efforts/Actions.

Electronic File Transfer(s) To/From, via Email/Google Drive/Dropbox/Clouds/etc.

Incorporate/Mark-Up/Comments, Utilizing Company Standard/Drafting/Checking/Mark-Up Color Codes:

Yellow - Checked/No Comment

Red - Comment

Green - Delete

Blue - Hand Written/Verbal Comment/Suggestion/Information/etc.

This Document Control Procedure was followed and required while working for various Engineering Companies away from the Home Office (Project Field Assignments), Both Domestic and Abroad. *“ISO 9001 Type Procedures”*

Communication Methods and “PDF” File Transfers:

Email/Phone/Cell/Google Meet/Google Drive/Video/Conference Calls/Etc.

Additional Specific Information may be Required for Checking (Multi-Disciplines):

Process Department: (Review/Comment)

PFD, P&ID, Instrumentation/Analytical & Electrical, Device/Equipment, Tag Number/Control System(s) Interface/Representation.

Material Balance: Documents, Process/Product Information, Per Piping/Line/Equipment, (Temperature/Pressure/Flow Rates/etc.).

Control Narratives/Special Notes/References/etc.

Piping & Mechanical Department: (Review/Comment)

Piping Specifications, Materials/Hook-Ups/Specialty Items. For All Instrument & Electrical Device/Equipment Installations.

Line List/Rotating/Equipment/3D-Model/Layouts/Plans & Reviews/etc.

Piping Isometric(s) (ISO's), Instrument “Tap” Locations/Orientations/etc.

Civil & Structural Department: (Review/Comment)

Above Ground & Under Ground, Project/Rules/Regulations/Requirements.

Control Room/Building(s), Remote/Local Shelter(s)/etc. Architectural, Project/Rules/Regulations/Requirements.

Pipe Rack/Structure(s)/Supports for all Instrumentation & Electrical Device/Equipment/Cable/Tubing/Tray Accommodations.

Procurement & Purchasing Department: (Review/Comment)

Inquiries/Requisitions/Quotes/Documents/Technical Reviews.

Clarification(s) for Professional Checking Services Rendered:

Work-Hour Estimate Overview is available for Document(s)/Drawing(s), that Require, Final Checking/Verification for Project Deliverables, Per Contract/Obligations/Commitments/Agreements/Company Standards/etc.

Governing/Support Document(s)/Drawing(s), are Necessary For a Complete/Comprehensive/Thorough/Checking Effort.

Confidentiality/Non-Disclosure/Proprietary, Information Agreements are Welcomed and Encouraged.

ODS will provide Rodney Primes' CV/Resume and personal references upon request.

If you have any questions or concerns, please contact us.

Kind Regards,

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